

### 104.3 - Stoichiometry (powder form)

These SRMs are defined as primary, working, and secondary standards in accordance with recommendations of the Analytical Chemistry Section of the International Union of Pure and Applied Chemistry [Ref. Analyst 90, 251 (1965)]. These definitions are as follows:

Primary Standard:

a commercially available substance of purity  $100 \pm 0.02\%$  (Purity 99.98 + %).

Working Standard:

a commercially available substance of purity  $100 \pm 0.05\%$  (Purity 99.95 + %).

Secondary Standard:

a substance of lower purity which can be standardized against a primary grade standard.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Description	Unit of Issue	Chloride Cl	Intended Use	Potassium Chloride KCl	Potassium K	Stoichiometric Purity (mass fraction %)
17f	Sucrose Optical Rotation	60 g		Optical Rotation			99.956
83d	Arsenic Trioxide (Reductometric)	60 g		Reductometric Standard			99.9926
84l	Potassium Hydrogen Phthalate	60 g		Acidimetric Standard			99.9934
136f	Potassium Dichromate, (Oxidimetric Standard)	60 g		Oxidimetric Standard			99.9954
350b	Benzoic Acid (Acidimetric)	30 g		Acidimetric Standard			99.9978
351a	Sodium Carbonate	50 g		Acidimetric Standard			99.970
723d	Tris Acidimetric	50 g		Acidimetric Standard			99.924
917c	D-Glucose (Dextrose)	50 g		Purity Optical Rotation			99.7
973	Boric Acid (Acidimetric Standard)	100 g		Acidimetric Value			100.009
999b	Potassium Chloride (Primary Chemical)	30 g	47.5519		99.977	52.4379	
8040	Sodium Oxalate (Reductometric)	60 g		Reductometric Standard			99.951

Certified values are normal font.

Reference values are italicized.

Values in parentheses are for information only.